

### REMARKS

The Office Action mailed March 12, 2009, has been received and its contents carefully noted. Claims 1, 4-23 and 25-34 were pending. Claims 1, 4, 5, and 25-34 were rejected. Claims 6-23 were withdrawn from consideration. By this Response, claims 1, 25 26 and 29 have been amended. The claims, as amended, reflect that the article or the fiber have a capacity for retaining water due, in part, to the promotion by the hydrophilic surface of water absorption. Support may be found in the specification, in particular the paragraph starting at line 23, paragraph bridging pages 2 and 3 bridging pages 14 and 15 ("water retainers") and the first three complete paragraphs on page 15 and Examples 1 and 2 ("absorb sufficient water spontaneously so that it becomes completely immersed in a water bath"). No statutory new matter is believed to have been added. Therefore, reconsideration and entry of the claims, as amended, are respectfully requested. Entry of the amendment would reduce the issues on appeal.

The EP counterpart application has issued as EP 1 481 035 B1. Translated claim 1 is directed to a process for producing surfaces with hydrophilic properties characterized in that particles which have hydrophilic properties are applied to a surface and secured there wherein the hydrophilic are applied by applying a suspension which comprises hydrophilic particles in a solvent, and then are secured by removing the solvent and the surface of the article is swelled or solvated by the solvent, and after removal of the solvent the particles have been anchored in the surface of the article.

#### **Rejection under 35 U.S.C. 112, first paragraph**

Claims 1, 4, 5 and 25-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

Reconsideration is respectfully requested. The Examiner's rationale for his finding is not appreciated. It appears that the Examiner is requiring express support for the added phrase. However, it is submitted that implied support can suffice. Applicants believe that the Examiner may have had some concerns with "high", a relative term, as it appears in the phrase "high water retention capacity". The phrase "water retention capacity" is thought to be clearly supported by

the phrases identified above on the cited pages. The descriptor “high” was merely added for emphasis and was thought to be supported, e.g., by Example 2 where there is more than a suggest that large amounts of water can be retained by the treated surface.

However, in the interests of advancing prosecution, “high” has been deleted from the identified claims.

Withdrawal of the rejection is requested.

### **Rejection under 35 U.S.C. 103(a)**

Claims 1, 4, 5 and 25-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soane (US 20030013369) in view of the Handbook of Fillers-A-Definitive User's Guide and Databook, "The Handbook".

The claims clearly describe an article characterized as having significant water retention properties and at least one surface characterized as hydrophilic due to the presence of fumed hydrophilic silica particles having an average particle size of from 1 nm to 20  $\mu\text{m}$  anchored in the surface or secured in a carrier layer. The hydrophilic surface is responsible for water absorption/retention.

Soane et al. do not expressly teach or suggest an article that has a hydrophilic surface and the ability to retain water. Their objective is clear. Soane et al. teach that there is a need for a robust and precisely controllable methodology to durably attach agents to fibers, yarns, fabrics and/or textiles (webs), without impairing the desired characteristics of the agent.. See paragraph [0004]. The agent is an encapsulator, which is a bead or matrix- a nano-particle having a polymeric shell which surrounds a releasable “payload”. Fragrances, biocides, antifungals, etc. are released from the agents over time. Various applications are mentioned.

Soane et al mention two applications where metal oxides are introduced to “textiles”- UV-Protective Textile-Reactive Nanoparticles (Paragraphs [0121] et seq.) and Colloidal Pigments/Reflectors (paragraphs [0148] et seq.). In both instances, the metal/metalloid oxides

are coated or surface modified. See paragraphs [0124] (silanized) and [0149] (silanized or polymer coated). These treatments would cause a hydrophilic surface of the metal/metalloid oxide to be rendered hydrophobic. Creation of a hydrophilic surface is not taught or desired.

It is also submitted that optimization of the Soane et al methodology would not lead to the hydrophilic surface area falling within the claimed range. The Soane et al. method leads to hydrophobic surfaces. Hydrophobic surfaces are not suited for water retention.

It is not seen how the “Handbook” remedies the deficiencies of Soane et al enumerated above. Soane et al. and the “Handbook”, even taken together do not suggest the concept upon which the claimed invention is based.<sup>4</sup>

Withdrawal of the rejection is respectfully requested.

#### **Rejections under the Court Doctrine of Obviousness-Type Double Patenting**

Claims 1, 5, 25-27 and 29-31 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 48 of U.S. Patent Application Serial No. 11/249,315. Applicants respectfully traverse.

Applicants have consulted PAIR (uspto.gov). The application has an abandoned status. The status was confirmed in a telephonic interview by the Examiner assigned to the application.

Withdrawal of the rejection is respectfully requested.

Claims 1, 5, 25-27 and 29-31 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3 and 7 of U.S. Patent Application Serial No. 10/506,604. Applicants respectfully traverse.

Applicants have consulted PAIR (uspto.gov). The status of the application is a Final Rejection Mailed.

Applicants reserve the right to obviate the rejection by filing a terminal disclaimer. It is believed that there is a clear line of demarcation. Applicants have amended the claims to distinguish over the teaching provided by claims 1, 3 and 7.

Claim 1 is directed to an injection molding with at least one surface which has self cleaning properties where the securely anchored micro-particles form elevation having an aspect ratio of from 0.3 to 0.9. Claim 3 further limits claim 1 by specifying the elevation as having an average height from 50 nm to 4  $\mu$ m and/or an average separation of from 50 nm to 4  $\mu$ m. Claim 7 further limits the composition of the microparticles to the materials specified in a Markush group where fumed silica is a member as are pulverulent polymers.

The instant claims are not directed to injection molded materials. The present claims are directed to textiles, articles having a hydrophilic surface imparted by the presence of hydrophilic pyrogenic silica. The hydrophilic surface causes water retention.

There is no guidance which would lead one to the selection of pyrogenic silica over pulverulent polymers. Included in the Markush group are chemically dissimilar materials. There is no indication that optimizing a surface for self cleaning properties would be the same as optimizing a surface for water retention.

It is submitted that the claims as amended are patentably distinct from the invention represented by claims 1, 3 and 7 of the '604 application. There is no extension of a monopoly.

Withdrawal of the rejection is respectfully requested.

Claims 1, 5, 25-27 and 29-31 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3 and 7 of U.S. Patent Application Serial No. 10/506,236. Applicants respectfully traverse.

Applicants have consulted PAIR (uspto.gov). The application has an abandoned status-failure to pay base issue fee. There is no indication that a petition has been filed.

Withdrawal of the rejection is respectfully requested.

**Request for Interview**

A telephonic or an in-person interview is respectfully requested should there be any remaining issues.

### CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Therefore, it is respectfully requested that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

It is not believed that extensions of time are required, beyond those that may otherwise be provided for in accompanying documents. However, in the event that additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. 1.136(a), and any fees required therefor are hereby authorized to be charged to **Deposit Account No. 02-4300, Attorney Docket No. 032301.602.**

Respectfully submitted,  
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